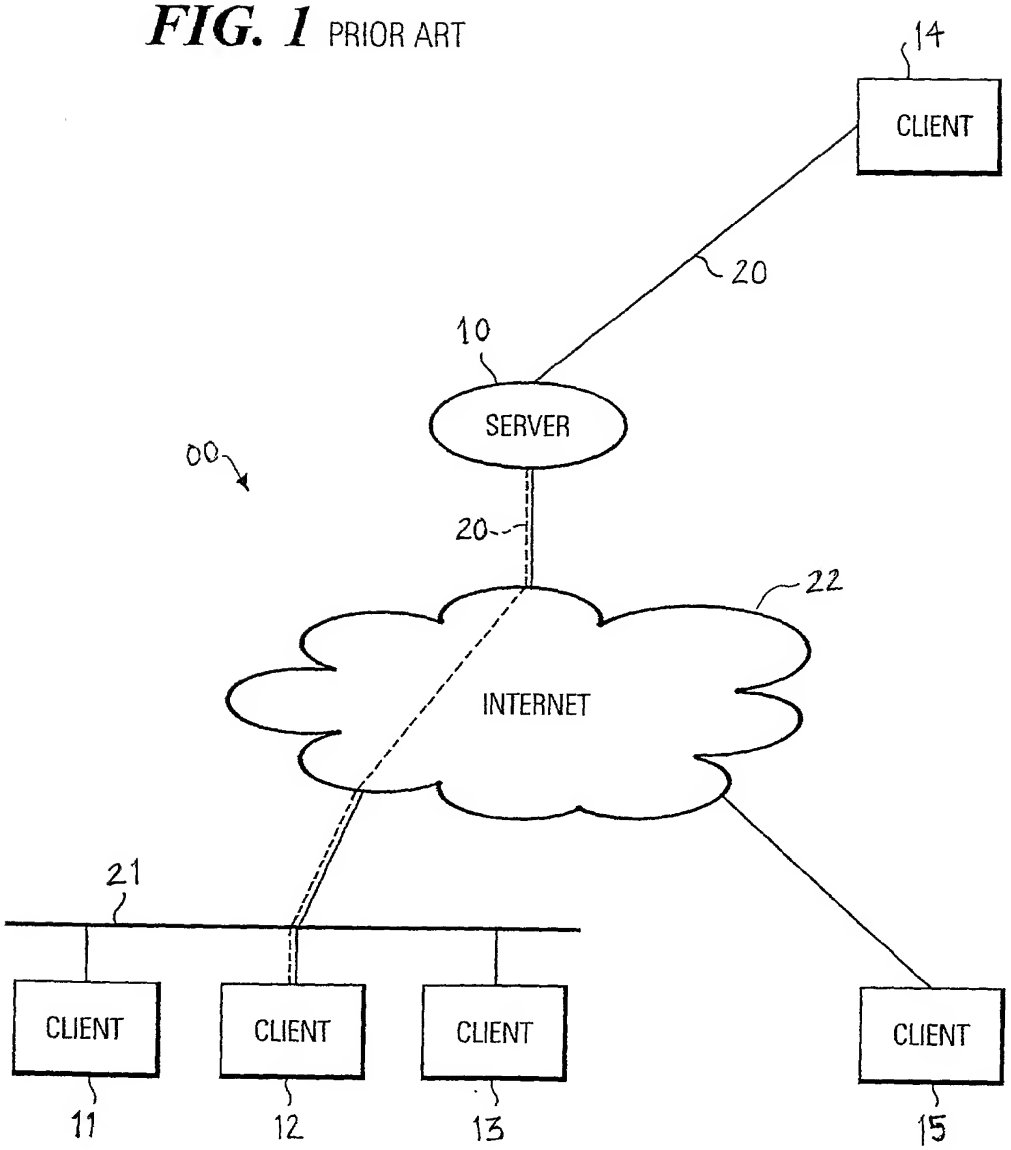
FIG. 1 PRIOR ART



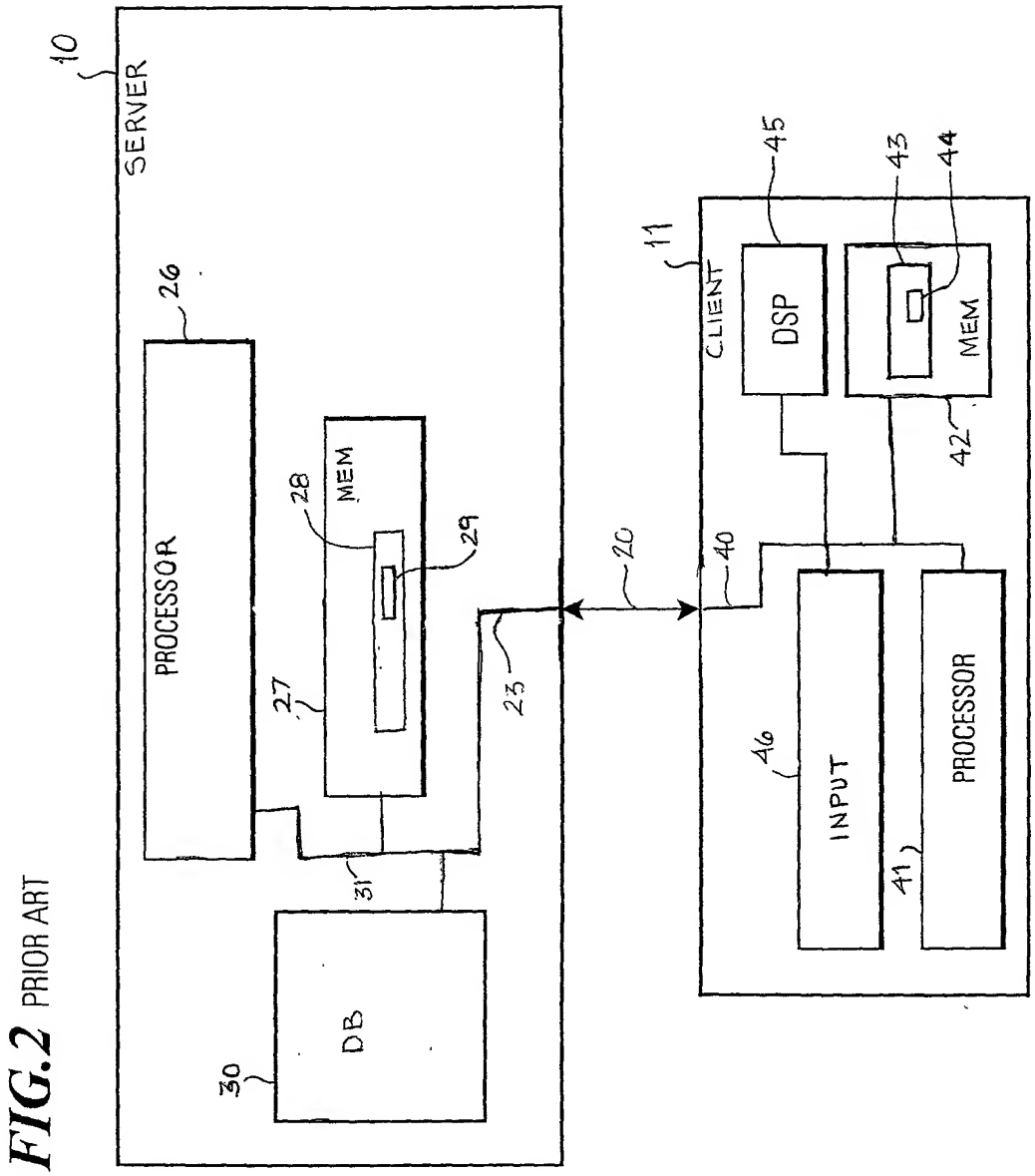


FIG.2 PRIOR ART

FIG.3 PRIOR ART

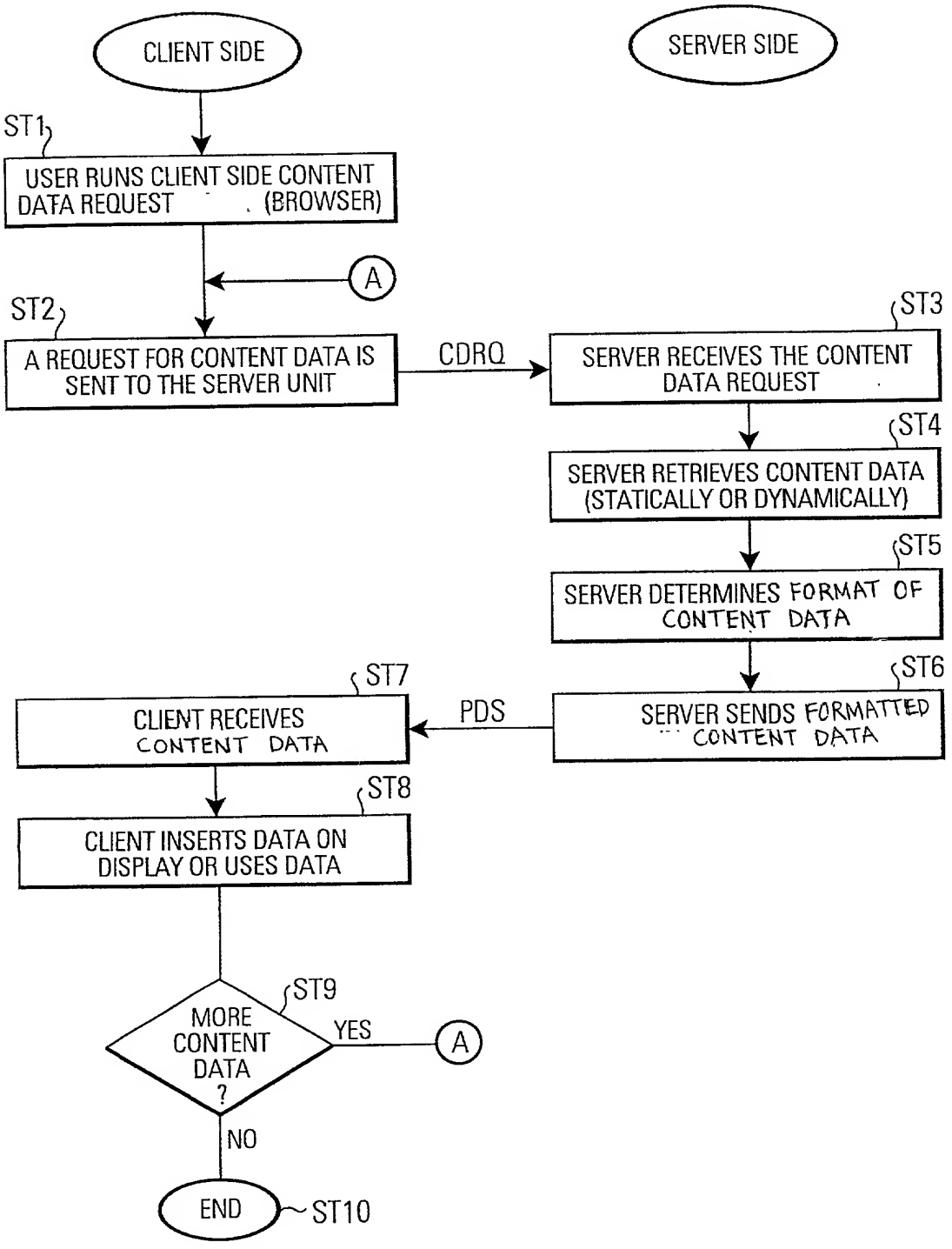


FIG.4 PRIOR ART

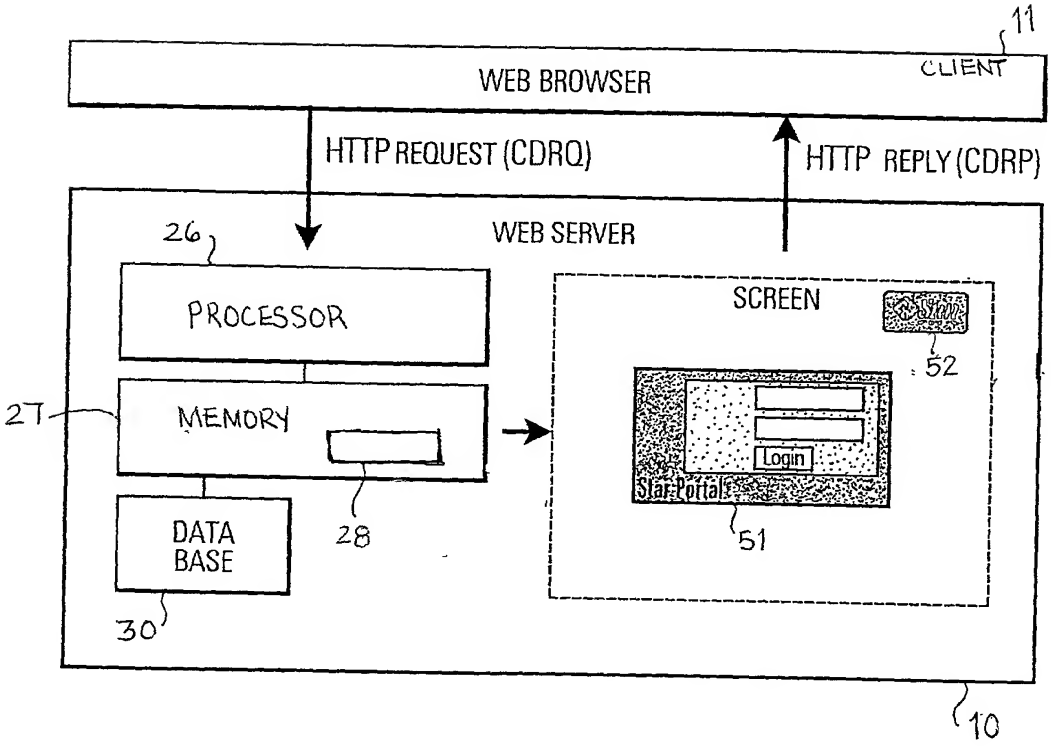


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FIG.5a

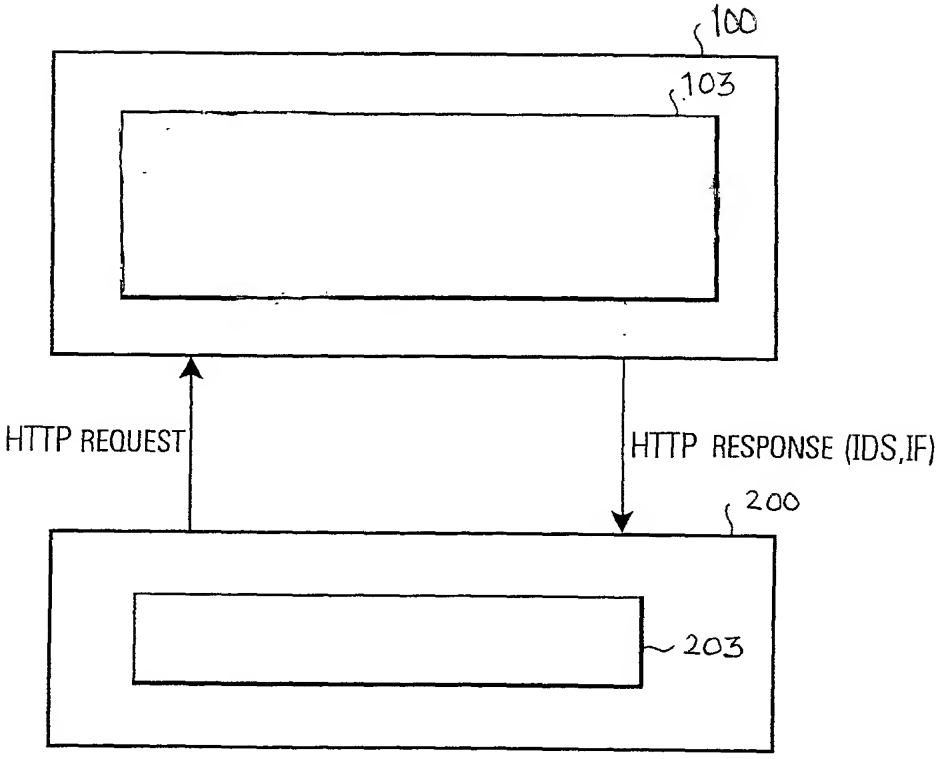


FIG.5c

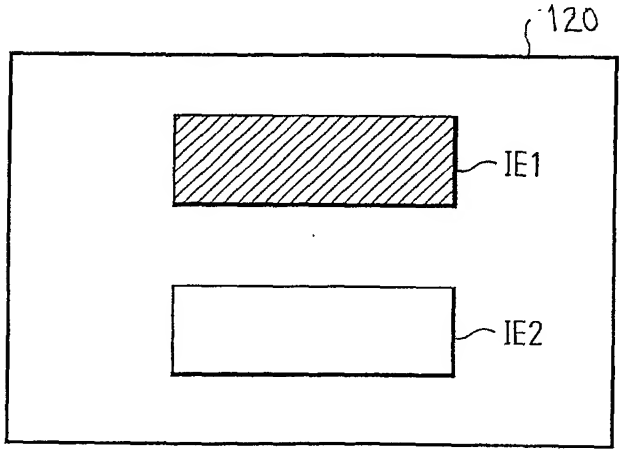
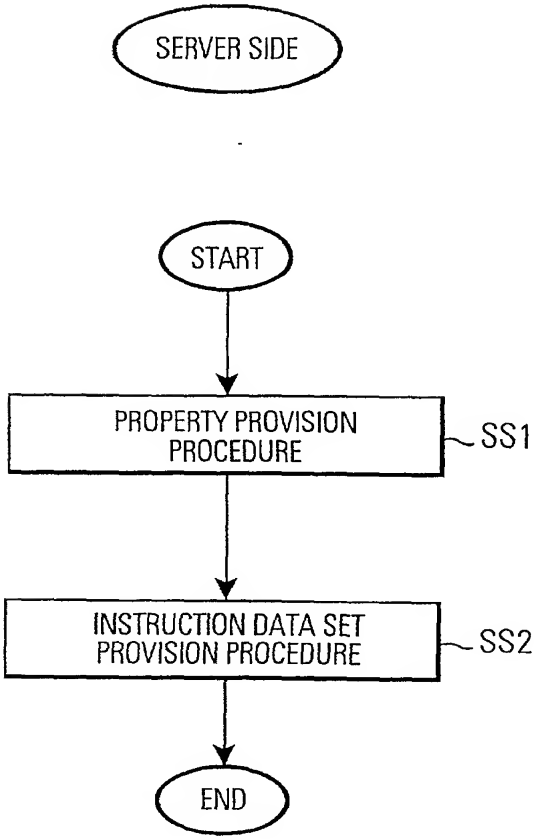


FIG.5b


SERVER SIDE
START
PROPERTY PROVISION PROCEDURE
SS1
INSTRUCTION DATA SET PROVISION PROCEDURE
SS2
END

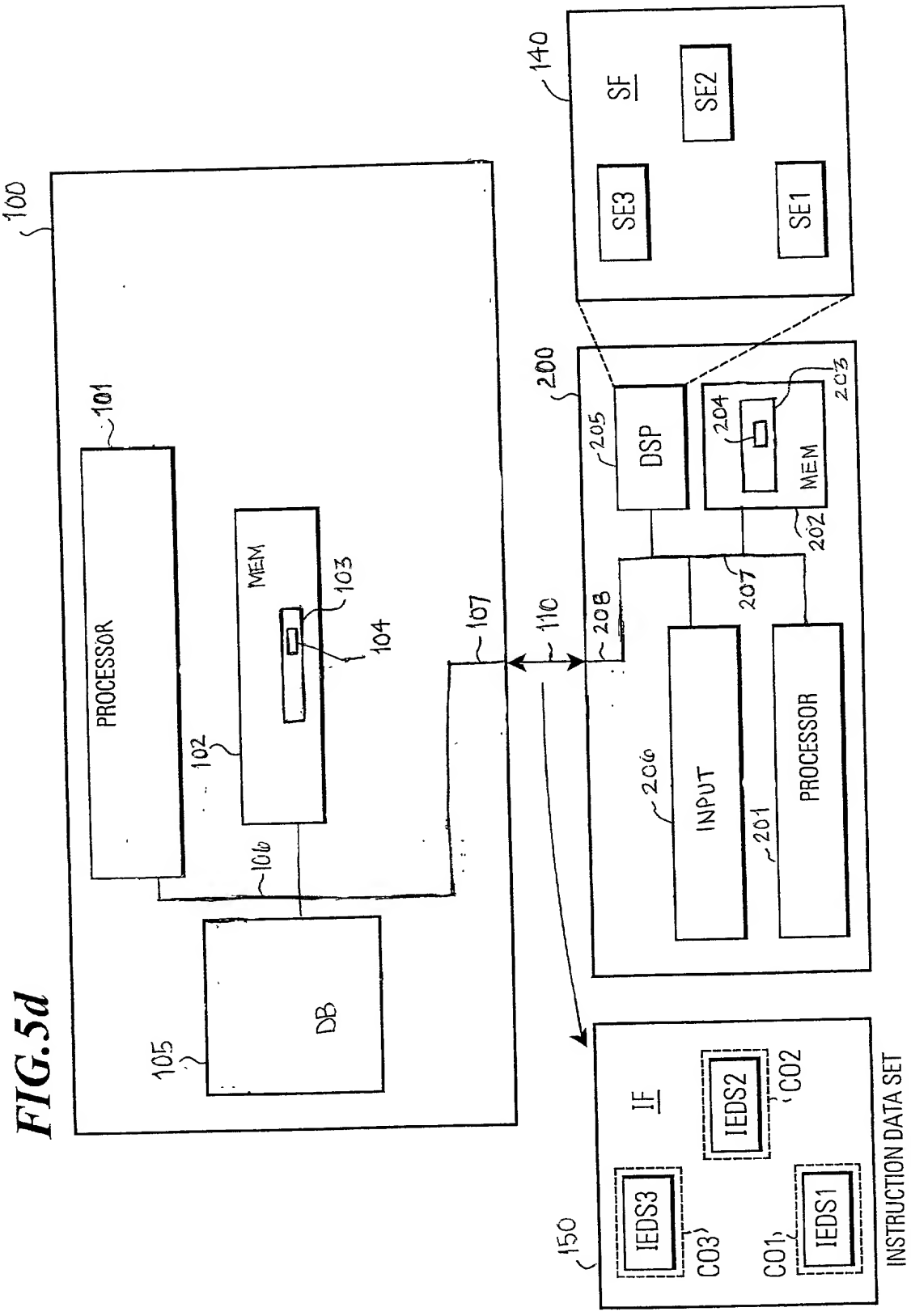

100
101
PROCESSOR
102
MEM
103
104
106
105
DB
107
110
140
SF
SE2
SE3
SE1
200
205
DSP
204
MEM
203
202
208
207
206
INPUT
201
PROCESSOR
150
IF
IEDS3
IEDS2
IEDS1
CO3
CO2
CO1
INSTRUCTION DATA SET

FIG.5d

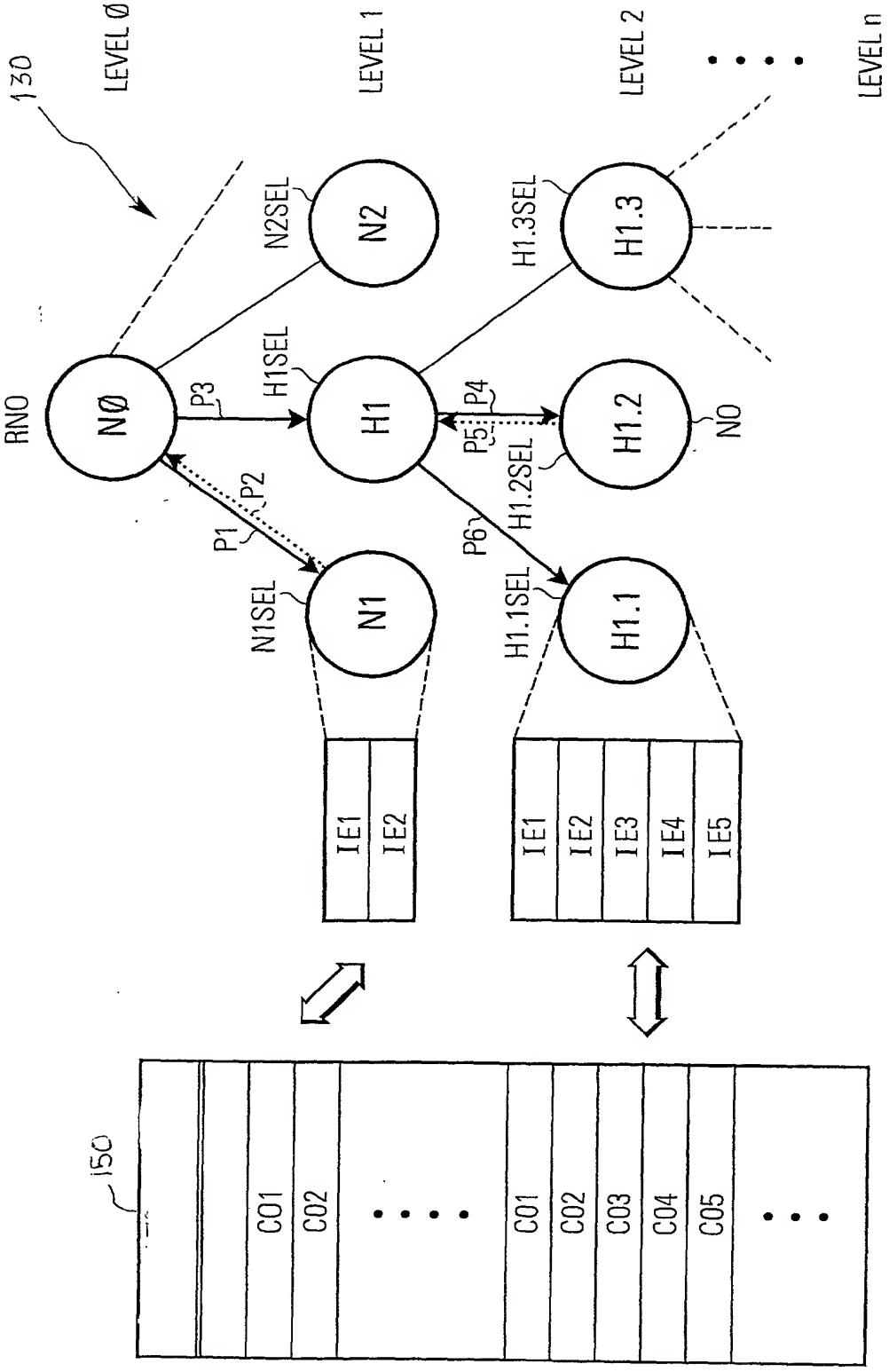

130
LEVEL Ø
LEVEL 1
LEVEL 2
LEVEL n
RNO
NØ
N2SEL
N2
H1.3SEL
H1.3
H1SEL
H1
P3
P4
P5
H1.2
NO
H1.2SEL
P2
P1
P6
N1SEL
N1
H1.1SEL
H1.1
IE1
IE2
IE1
IE2
IE3
IE4
IE5
150
CO1
CO2
CO1
CO2
CO3
CO4
CO5

FIG.6

FIG.7a

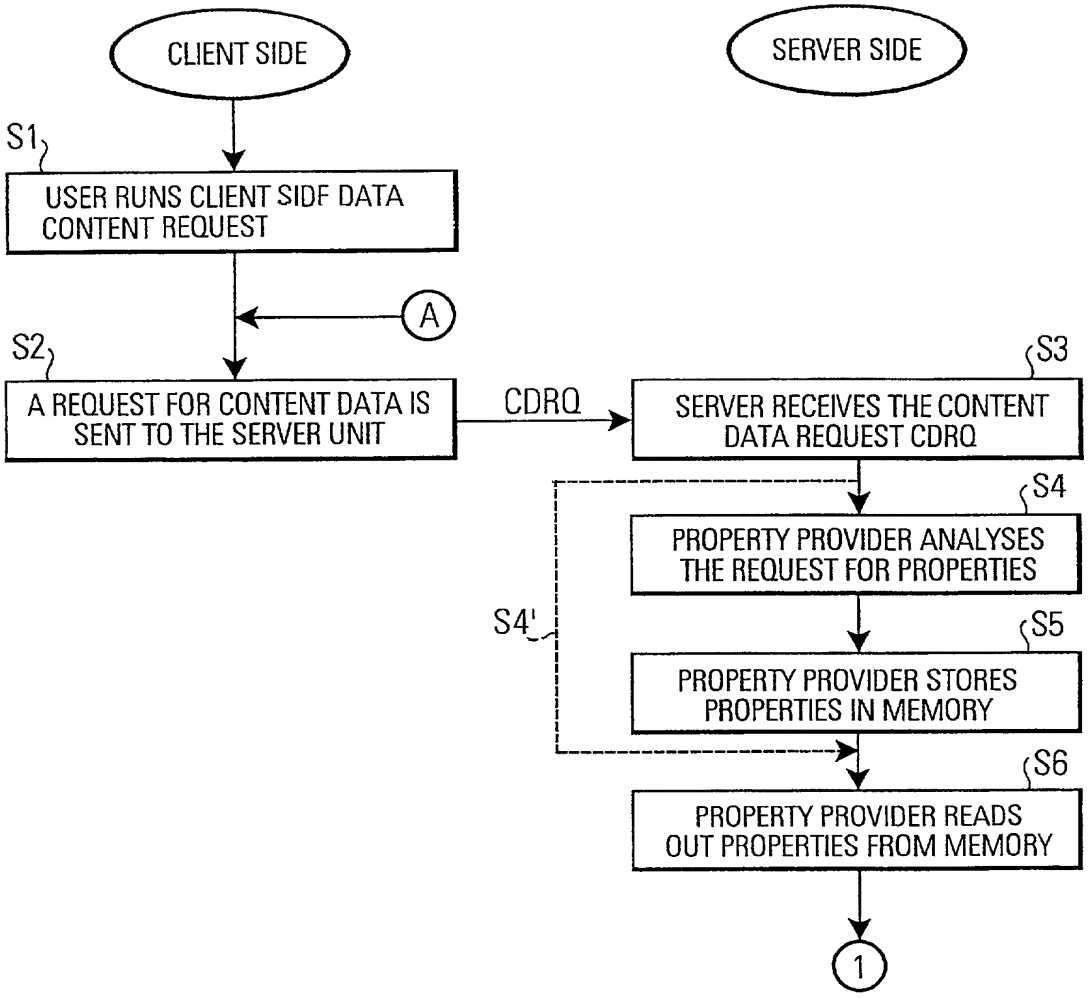
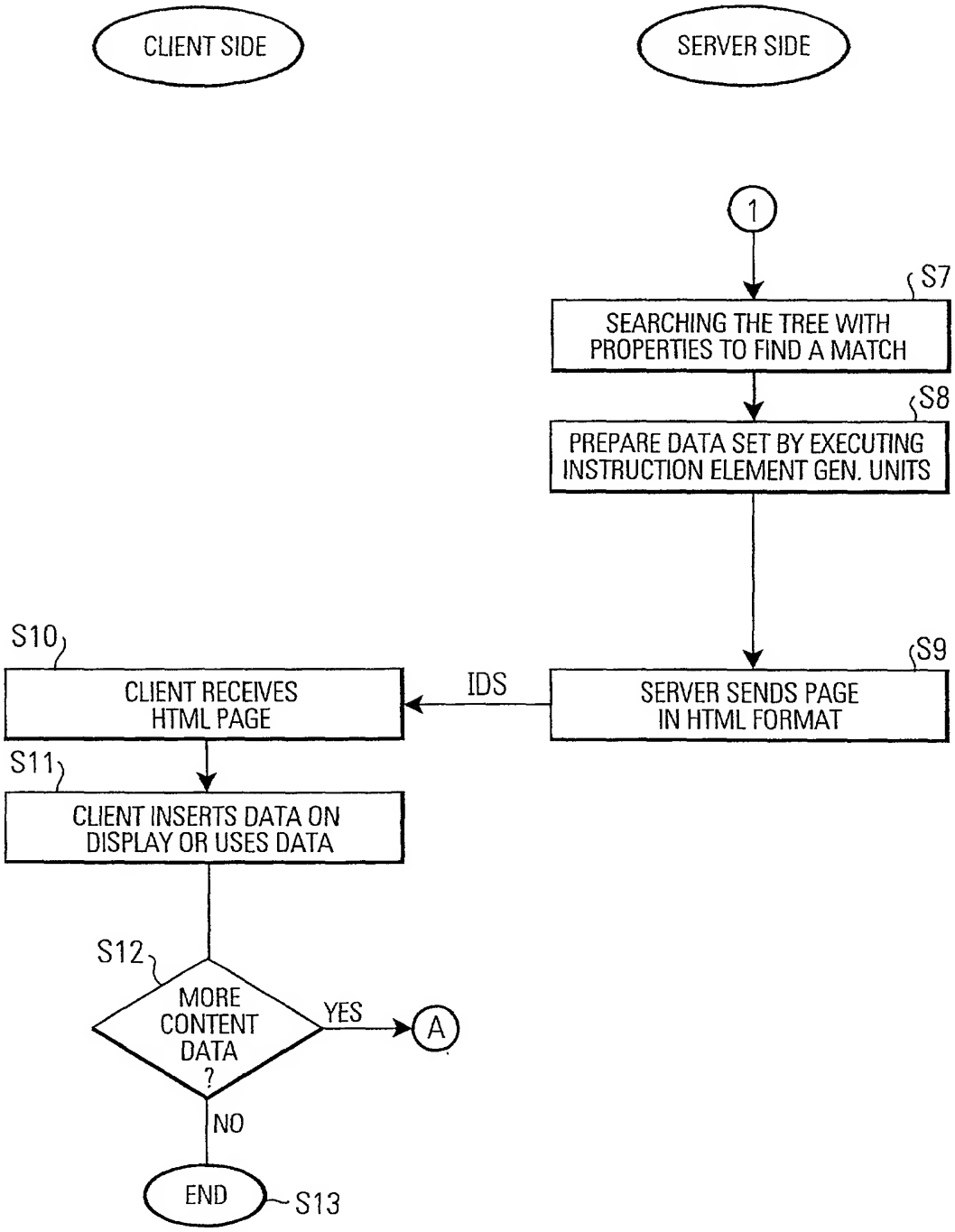

CLIENT SIDE
SERVER SIDE
S1
USER RUNS CLIENT SIDF DATA CONTENT REQUEST
A
S2
A REQUEST FOR CONTENT DATA IS SENT TO THE SERVER UNIT
CDRQ
S3
SERVER RECEIVES THE CONTENT DATA REQUEST CDRQ
S4
PROPERTY PROVIDER ANALYSES THE REQUEST FOR PROPERTIES
S4'
S5
PROPERTY PROVIDER STORES PROPERTIES IN MEMORY
S6
PROPERTY PROVIDER READS OUT PROPERTIES FROM MEMORY
1

FIG. 7b


CLIENT SIDE
SERVER SIDE
1
S7
SEARCHING THE TREE WITH PROPERTIES TO FIND A MATCH
S8
PREPARE DATA SET BY EXECUTING INSTRUCTION ELEMENT GEN. UNITS
S9
SERVER SENDS PAGE IN HTML FORMAT
IDS
S10
CLIENT RECEIVES HTML PAGE
S11
CLIENT INSERTS DATA ON DISPLAY OR USES DATA
S12
MORE CONTENT DATA ?
YES
A
NO
END
S13

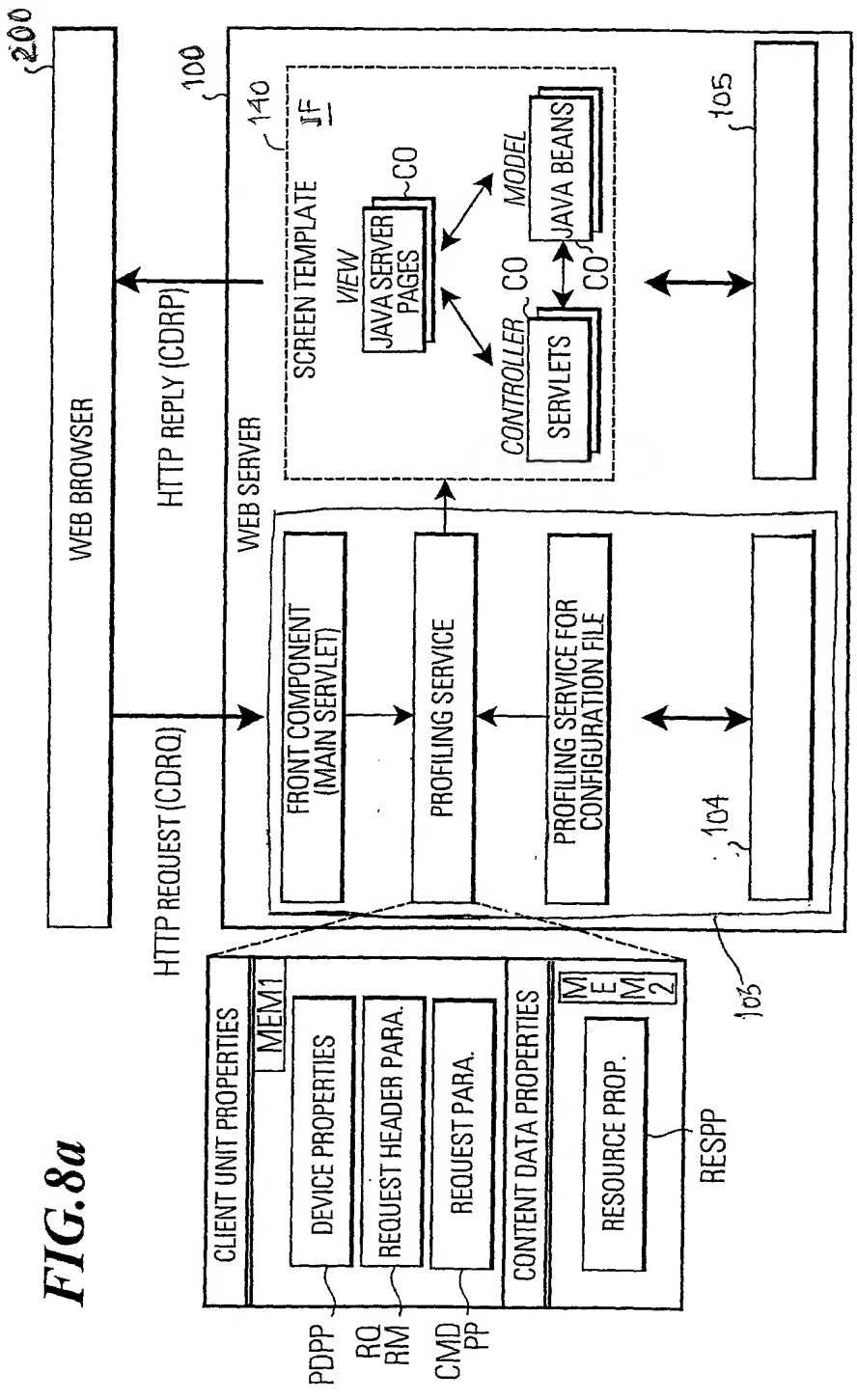
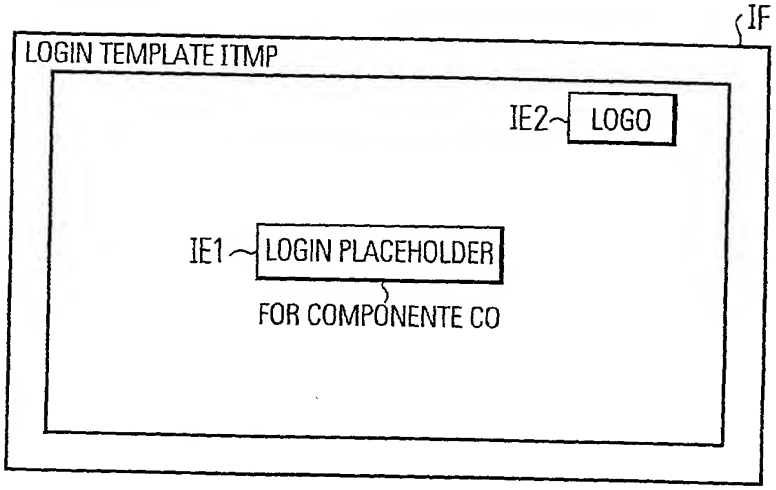

200
WEB BROWSER
HTTP REQUEST (CDRQ)
HTTP REPLY (CDRP)
100
WEB SERVER
140
SCREEN TEMPLATE
JF
VIEW
JAVA SERVER PAGES
CO
MODEL
JAVA BEANS
CONTROLLER
CO
SERVLETS
CO
105
FRONT COMPONENT (MAIN SERVLET)
PROFILING SERVICE
PROFILING SERVICE FOR CONFIGURATION FILE
104
105
CLIENT UNIT PROPERTIES
MEM1
DEVICE PROPERTIES
REQUEST HEADER PARA.
REQUEST PARA.
CONTENT DATA PROPERTIES
MEM2
RESOURCE PROP.
RESPP
PDPP
RQ RM
CMD PP

FIG.8a

FIG.8b


IF
LOGIN TEMPLATE ITMP
IE2
LOGO
IE1
LOGIN PLACEHOLDER
FOR COMPONENTE CO

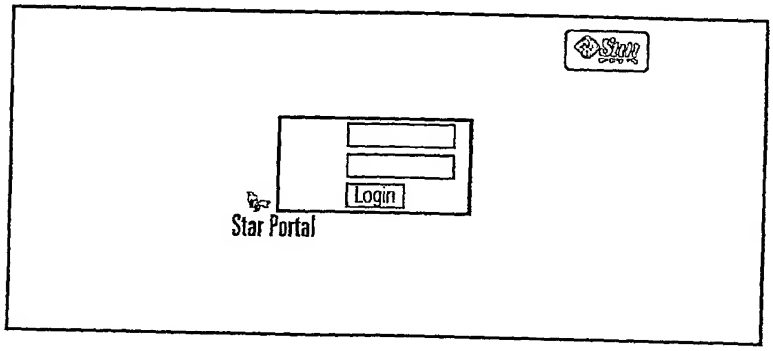
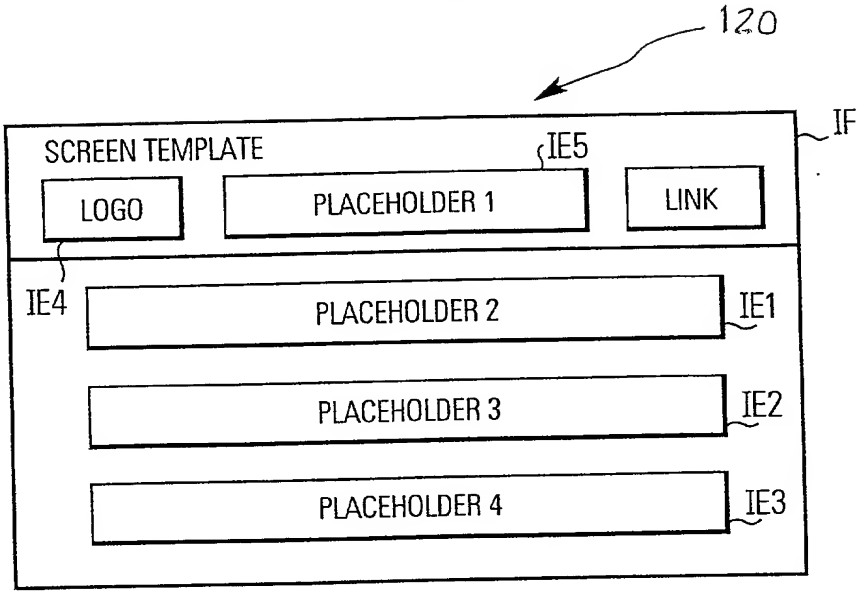

Login
Star Portal

FIG.8c


120
IF
SCREEN TEMPLATE
IE5
LOGO
PLACEHOLDER 1
LINK
IE4
PLACEHOLDER 2
IE1
PLACEHOLDER 3
IE2
PLACEHOLDER 4
IE3

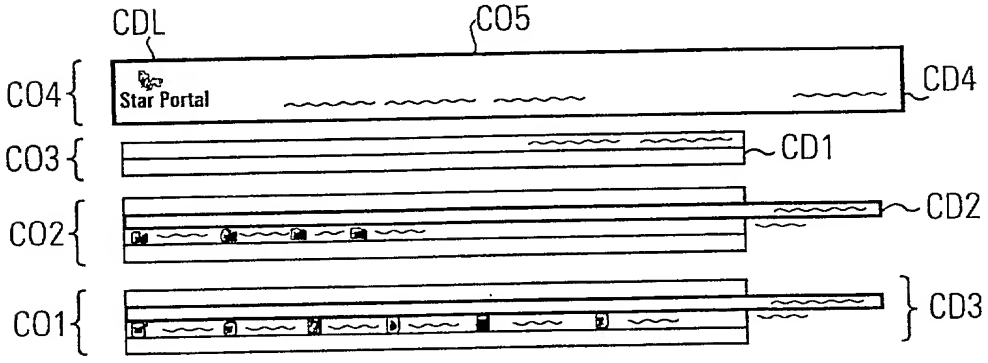

CDL
CO5
CO4
Star Portal
CD4
CO3
CD1
CO2
CD2
CO1
CD3

FIG.9

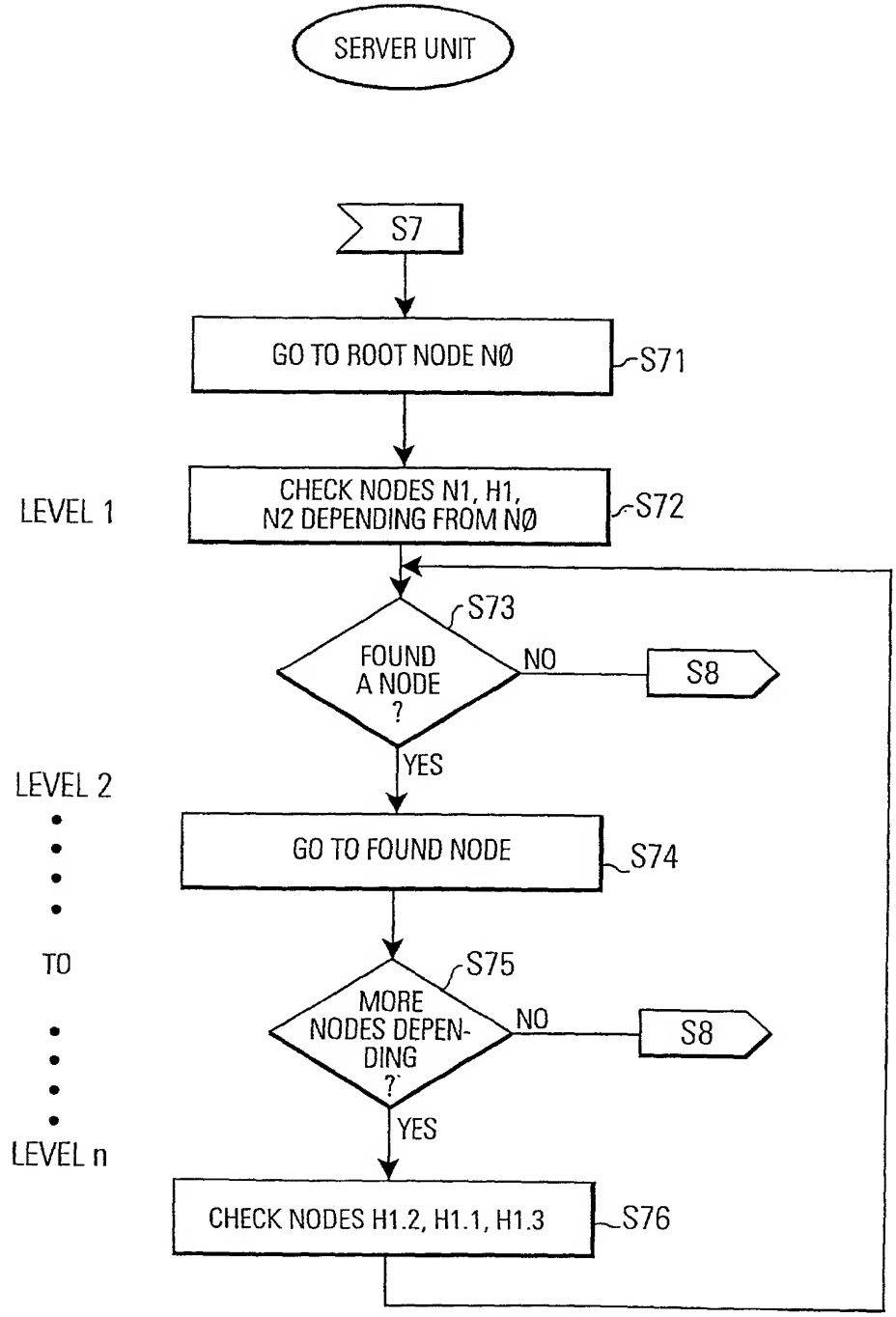

SERVER UNIT
S7
GO TO ROOT NODE NØ
S71
CHECK NODES N1, H1, N2 DEPENDING FROM NØ
S72
LEVEL 1
S73
FOUND A NODE ?
NO
S8
YES
LEVEL 2
GO TO FOUND NODE
S74
TO
S75
MORE NODES DEPEN-DING ?
NO
S8
YES
LEVEL n
CHECK NODES H1.2, H1.1, H1.3
S76

FIG.10a

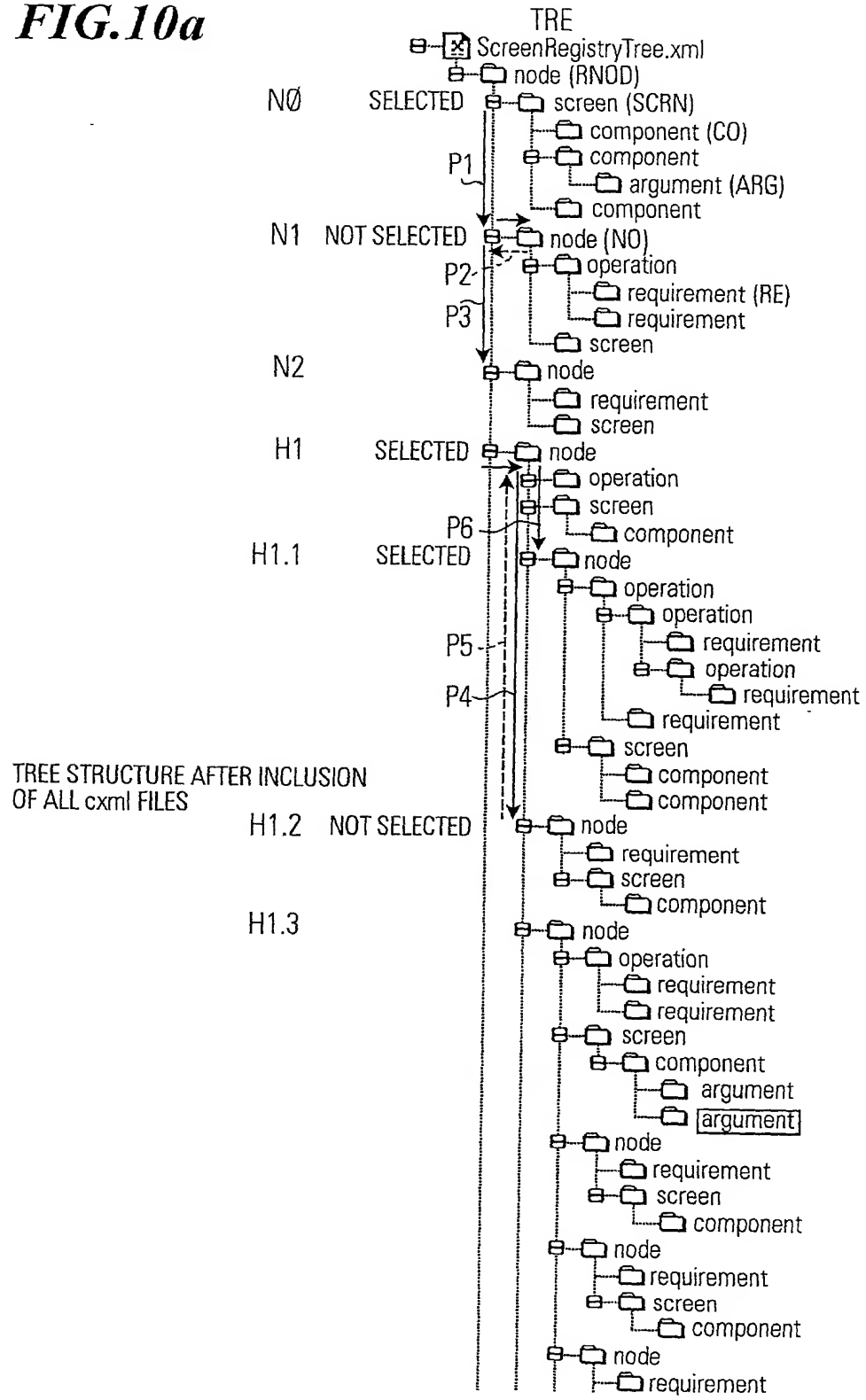

TRE
ScreenRegistryTree.xml
node (RNOD)
NØ SELECTED
screen (SCRN)
component (CO)
component
P1
argument (ARG)
component
N1 NOT SELECTED
node (NO)
operation
P2
requirement (RE)
P3
requirement
screen
N2
node
requirement
screen
H1 SELECTED
node
operation
screen
P6
component
H1.1 SELECTED
node
operation
operation
P5
requirement
operation
P4
requirement
requirement
screen
component
component
TREE STRUCTURE AFTER INCLUSION OF ALL cxml FILES
H1.2 NOT SELECTED
node
requirement
screen
component
H1.3
node
operation
requirement
requirement
screen
component
argument
argument
node
requirement
screen
component
node
requirement
screen
component
node
requirement

FIG.10b

xml file for main nodes MAIN

```
<?xml version="1.0" encoding= "ISO-8859-1"? >
<! -- sreen definitions -->
- <node>
   <!-- default screen -->
  - <screen template="/html/HTMLTemplate.jsp " class=" default >
N0    <component name= "Title" value="www.mydomain.com" direct="true"/>
    - <component name= "Background" value="/html/HTMLBackground.jsp"/>
        <argument name="picture" value="$BACKGROUND_PICTURE"/>
      </component>
      <component name= "Error" value="/html/HTMLError.jsp"/>
    </screen>
    <!-- execute login -->
  - <node>                                          RETYP
    -<operation type= "and">
N1      <requirement type= "requestParameter" name="cmd"
          value= "execute_login"/>
        <requirement type= "executionEnvironment" name="loginBean"
          value="null"/>
      </operation>
      <screen template="/portal/login" class= "login"/>
    </node>
    <!-- logout -->
  - <node>
        <requirement type="requestParameter" name="cmd" value="logout"/>
N2      <screen template= "/portal/logout" class="logout"/>
    </node>
    <!-- include screen definition files for different devices supported
    -->
    <include file="etc/screenregistries/portal/ScreenRegistry_wml.xml" />
    <include file="etc/screenregistries/portal/ScreenRegistry_pqa.xml" />
    <include file="etc/screenregistries/portal/ScreenRegistry_xul.xml" />
    <include file="etc/screenregistries/portal/ScreenRegistry_html.xml"/>
  </node>
```

FIG.10c

TREE VIEW FOR SOME HTML NODES OF THE SCREEN REGISTRY

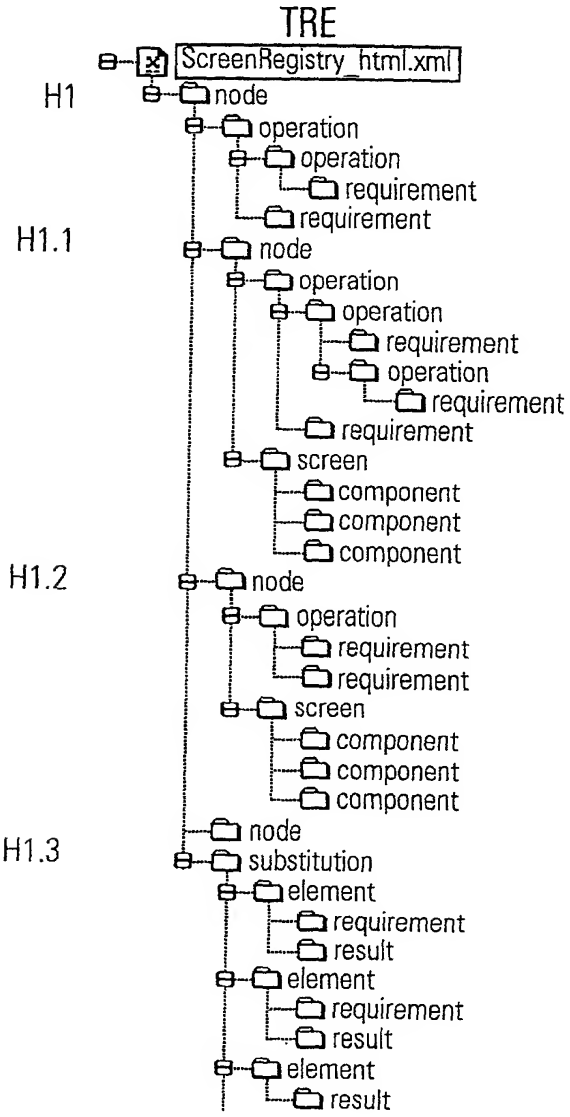


FIG.10d xml file of HTML nodes HTML

```
<?xml version= "1.0" encoding= "ISO-8859-1"?>
<!-- Screen definitions for standard HTML devices ( MSIE,Netscape, ...)
-->
- <node>
  - <operation type="or" >
    - <operation type="not" >
H1        <requirement type="ccpp" name="Browser.CCPPAccept.text/html"
            value="null" />
      </operation>
      <requirement type="requestHeaderParameter" name= "user-agent"
        value="Mozilla*"/>
    </operation>
    <!-- login page -->
H1.1 - <node>
    - <operation type="or">
      - <operation type="and">
          <requirement type="executionEnvironment" name= "loginBean"
            value="null" />
          <operation type="not" >
            <requirement type= "requestParameter" name= "cmd"
              value= "execute_login"/>
          </operation>
        </operation>
        <requirement type= "requestParameter" name= "page" value="login"/>
      </operation>
    - <screen ID="Login.Screen" template= "/html/HTMLLoginTemplate.jsp"
        class="default">
        <component name="Title" value="HTMLLogin.title" direct="true"
          base= "com.sun.star.portal.web.jsp.html" />
        <component name="CurrentContent" value="/html/HTMLLogin.jsp" />
        <component name="Error" value= "/html/HTMLError.jsp"/>
      </screen>
    </node>
    <!-- welcome page -->
H1.2 - <node>
    - <operation type="or" >
        <requirement type= "executionEnvironment"
          name= "UniversalContentBrockerContent" value= "null"/>
        <requirement type="resourceProperty" name= "PresentationURL"
          value= "staroffice.private:factory/desktop" />
      </operation>
    - <screen ID= "Welcome.Screen" class= "default" >
        <component name= "Title" value= "HTMLWelcome.title" direct="true"
          base="com.sun.star.portal.web.jsp.html" />
        <component name= "Shortcuts" value="/html/HTMLShortcuts.jsp" />
        <component name= "CurrentContent"
          value="/html/HTMLWelcome.jsp" />
      </screen>
    </node>
H1.3 - <node>
      <!-- more HTML nodes ... -->
    </node>
  - <substitution name="$BACKGROUND_PICTURE" >
    - <element>
        <requirement type= "userInformation" name="gender" value="f" />
        <result value="HTMLWomensBackground.gif" />
```

file: //V:\pat\ScreenRegistry_html.xml

Express Mail No. EV339045705US

FIG.10e

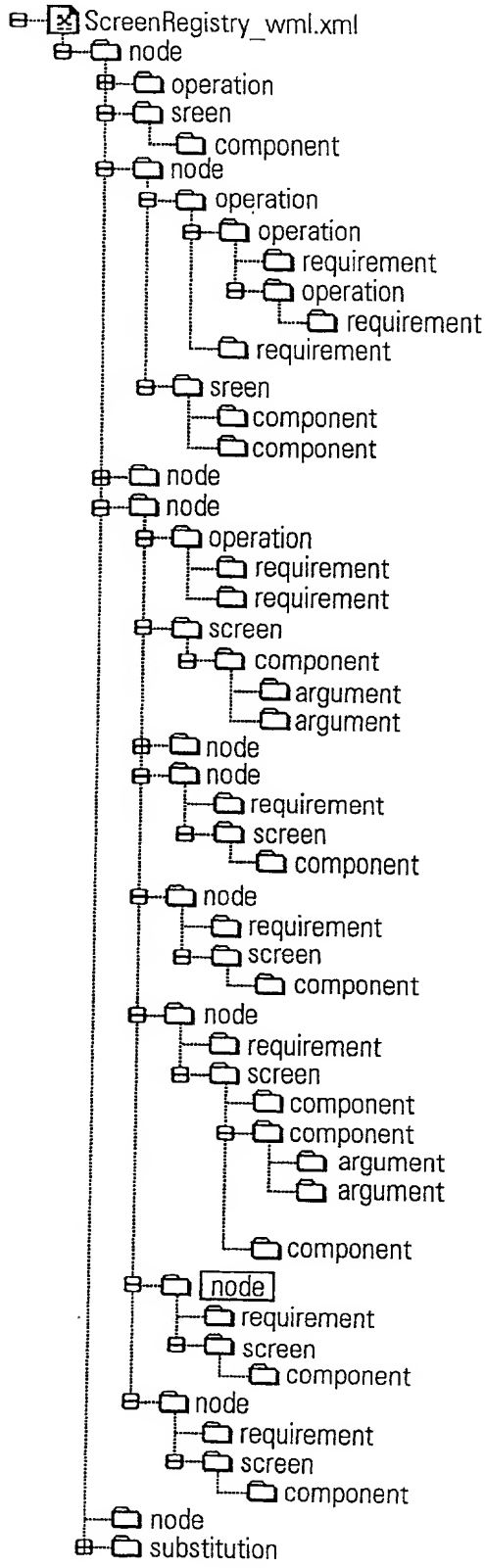
Attorney Docket No. 30014200-1020

```
    <element>                                                    HTML
  - <element>
      <<requirement type="userinformation" name="gender" value="m"/>
      <result value="HTMLMensBackground.gif"/>
    <element>
  - <element>
      <result value="HTMLdefaultBackground.gif"/>
    </element>
   </substitution>
</node>
<!-- End standard HTML description -->

file: //V:\pat\ScreenRegistry_html.xml
```

FIG.10f

WML NODES



4005505.4 4005505.4

WML xml FILE OF WML NODES

FIG.10g

```
<?xml version="1.0" encoding= "ISO-8859-1"?>
<!-- Screen definitions for WAP (WML) devices -->
- <node>
 - < operation type="or">
  - <operation type="not">
     <requirement type="ccpp"
      name="Browser.CCPPAccept.text/vnd.wap.wml" value="null">
    </operation>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="Wapalizer*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="Nokia*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="R380*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="ERKO UP/4.0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="ALAV UP/4.0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="SP01 UP/4.0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="T250 UP/4. 0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="IM1K UP/4.0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="MOT-CB/0.0.18 UP/4.0.10*"/>
    <requirement type="requestHeaderParameter" name="user-agent"
     value="SH UP/4.0.10*"/>
  </operation>
 - <screen template="/wml/WMLTemplate.jsp" class="wml">
    <component name="Error"value="/wml/WMLError.jsp"/>
  </screen>
  <!-- login page -->
 - <node>
   - <operation type="or">
     - <operation type="and">
        <requirement type="executionEnvironment" name="loginBean"
         value="null"/>
       - <operation type="not">
          <requirement type="requestParameter" name="cmd"
           value="execute_login"/>
         </operation>
       </operation>
       <requirement type="requestParameter" name="page" value="login"/>
     </operation>
    - <screen template="/wml/WMLLOginTemplate.jsp" class="login">
       <component name="Deck_1" value="/wml/WMLLogin.jsp"/>
       <component name="Error" value="/wml/WMLError.jsp"/>
     </screen>
   </node>
   <!-- welcome page -->
  - <node>
     <requirement type="executionEnvironment"
      name="UniversalContentBrockerContent" value="null"/>
    - <screen class="wml">
       <componente name="Deck_1" value="wml/WMLWelcome.jsp"/>
```

file: //V:\pat\ScreenRegistry_wml.xml

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FIG.10h

WML

```
    </screen >
  </node>
  <!-- module explorer -->
- <node>
  - <operation type="or">
      <requirement type="resourceProperty" name="protocol"
        value="file:"/>
      <requirement type= "resourceProperty" name="protocol"
        value="ftp:"/>
    </operation>
  - <screen class="wml">
    - <component name="Deck_1" value="$WMLEXPLORER" >
        <argument name="explorertype" value="explorer"/>
        <argument name="title" value= "WMLExplorer".documents"/>
      </component >
    </screen>
  - <node>
      <requirement type="requestParameter" name "cmd"
        value="viewPage"/>
    - <screen class="wml">
        <component name="Action" value="/portal/viewpage"/>
    - </screen>
    </node>
  - <node>
      <requirement type="requestParameter" name="cmd"
        value="rename"/>
    - <screen class="wml">
        <component name="Deck_1" value="WMLRename.jsp"/>
      </screen>
    </node>
  - <node>
      <requirement type="requestParameter" name= "cmd" value ="delete"/>
    - </screen class="wml">
        <component name="Action" value = "/portal/delete"/>
      </screen>
    </node>
  - <node>
      < requirement type= "requestParameter" name="cmd"
        value="execute_mail" />
    - <screen class= "wml" >
        <component name="Action" value="/portal/mail" />
      - <component name="Deck_1" value="$WMLEXPLORER" >
          <argument name="explorertype" value= "explorer"/>
          <argument name="title" value="WMLExplorer,documents"/>
        </component>
        <component name="Error"
          value="/wml/WMLMailSendError.jsp"/>
      </screen>
    </node>
  - <node>
      <requirement type="requestParameter" name="cmd"
        value="execute_new_folder"/>
    - <screen class="wml">
        <component name="Action" value="/portal/newFolder" />
      </screen>
    </node>
  - <node>
```

file: //V:\pat\ScreenRegistry wml.xml

FIG.10i

WML

```
        <requirement type="requestParameter" name="submodule"/>
          value="menu"/>
      - <screen template="/wml/WMLTemplate.jsp" class= "contextmenu">
          <component name="Deck_1"value="/wml/WMLCommands.jsp"/>
        </screen>
      </node>
    <node>
  - <node>
      <!-- more WML nodes ... -->
    </node>
  - <substitution name="$WMLEXPLORER" >
    - <element>
        <requirement type= "requestParameter" name= "viewTypeExplorer"
          value="fileview"/>
        <result value= "/wml/WMLFileView.jsp"/>
      </element>
    - <element>
        <result value="/wml/WMLFolderView.jsp" />
      </element>
    </substitution>
  </node>
  <!-- End WAP (WML) description -->
```

file: //V:\pat\ScreenRegistry_wml.xml